Montana School for the Deaf and the Blind's

Technology Plan

2005-2008

Our vision for the students at the Montana School for the Deaf and the Blind, and for all the sensory-impaired students in Montana, is that through the use of technology they will become successful and contributing members of society.

TABLE OF CONTENTS

MSDB's Technology Plan

Section A: Overview

The Montana School for the Deaf and the Blind's (MSDB) 2005-2008 technology plan was created in the spring of 2005 by the technology committee:

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Staci Bechard, Librarian
Pam Boespflug, Supervising Teacher for the Blind
Carol Clayton-Bye, VI Teacher
Marty Guhl, HI Teacher
Jim Kelly, Dean of Students
Diane Moog, HI Teacher
Scott Patera, MSDB Foundation
Kim Schwabe, Supervising Teacher for the Deaf/Technology Coordinator
Bill Sykes, Business Manager
Jim Takenaka, VI Teacher
Jody Troupe, Network Manager

In creating this plan, we melded our old template with the technology plan template provided by J. Mayfield of the Golden Triangle Curriculum Consortium (GTCC).

It is the goal of MSDB to have realistic goals for using telecommunications and information technology to improve education and increase student achievement in our school. Based on the National Educational Technology Standards for Students (http://cnets.iste.org/students/), MSDB strives to initiate and sustain the most effective learning environments through technology integration. Research evidence (CARET, 2003, evidence&answerID=22) supports that technology is most effectively integrated into instruction when educators and education decision makers develop detailed plans for infusing technology as a tool to increase learning opportunities.

ISTE Technology Foundation Standards for Students

1. Basic operations and concepts
    - Students demonstrate a sound understanding of the nature and operation of technology systems.
    - Students are proficient in the use of technology.
2. Social, ethical, and human issues
    - Students understand the ethical, cultural, and societal issues related to technology.
    - Students practice responsible use of technology systems, information, and software.
    - Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.
3. Technology productivity tools
    - Students use technology tools to enhance learning, increase productivity, and promote creativity.
    - Students use productivity tools to collaborate in constructing technology-enhanced models, prepare publications, and produce other creative works.
4. Technology communications tools
    - Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.
    - Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.

5. Technology research tools
    - Students use technology to locate, evaluate, and collect information from a variety of sources.
    - Students use technology tools to process data and report results.
    - Students evaluate and select new information resources and technological innovations based on the appropriateness for specific tasks.
6. Technology problem-solving and decision-making tools
    - Students use technology resources for solving problems and making informed decisions.
    - Students employ technology in the development of strategies for solving problems in the real world.

MSDB's technology goals and objectives will help our students to meet challenging state standards using our technology curriculum (GTCC) which is aligned to the Montana Technology Content and Performance Standards because research (CARET, 2003, evidence&answerID=19) has shown that "technology is most effectively integrated into instruction when educators and education decision makers review and analyze the content of technology applications to determine if the introduced skills and knowledge align with curriculum content standards" .

Students and teachers at MSDB have access to technology and our teachers are prepared to integrate technology effectively into curricula and instruction. Our students and staff have access to technological resources including hardware, software, and technology integration support staff.
MSDB strives to increase teacher content knowledge to facilitate increased student improvement using the following strategies to meet the OPI Technology Plan Goals. These goals, as identified in the OPI Ed Tech Grant (Office of Public Instruction, updated 2004), are:

1. *Integrating technology into curriculum and instruction: All Montana teachers will be effective and efficient integrators of technology into their curriculum and instruction.*
2. *Integrating technology into curriculum and instruction: All Montana teachers will know, understand, and be able to teach the content knowledge required by the Montana Technology Content and performance standards for students.*
3. *Increasing the Ability of Teachers to teach Utilizing Technology: All Montana teachers and principals will be technologically proficient.*
4. *Enabling Students to meet Challenging State Standards: All Montana students will be technologically proficient by eighth grade.*

Strategies that result in effective instructional applications of technology's impact on teaching and learning are related to analytical incorporation of lesson or unit plans that describe how available hardware, networks, and content applications will be used to assist implementation of instructional objectives. Additional research and evaluation (CARET, 2003, evidence&answerID=28, answers&QuestionID=2) confirms that technology enables the development of higher order thinking skills when students are taught to apply the process of problem solving and are then allowed opportunities to apply technology in development of solutions in addition to working in collaborative groups while using computers to solve problems, and then using technology presentation with communication tools to present, publish, and share results of projects. **Reference** (Cotton, 1999 pp. 9-10, 15)

MSDB will provide opportunities for ongoing professional development to ensure that the staff knows how to use the new technologies to improve education and increase student achievement. Research evidence (Center CARET, 2003, answers&QuestionID=27) supports attendance and participation of teachers at high quality professional development opportunities pertaining to technology builds teacher confidence and interest in technology and that administrative allocation of time for teachers to

collaboratively learn and practice using technology can increase teacher confidence and interest in technology. In addition to yearly orientation opportunities to technology and media, staff can obtain training through:

- staff release time/PIR
- participation in technology workshops, conferences, or distance learning opportunities
- membership in Golden Triangle Cooperative with access to Summer Institutes and Regional Outreaches
- participation in annual Montana Education Association Conferences, Council for Exceptional Children conferences (or other professional groups as applicable)
- peer information exchange and support
- participation in opportunities offered by national training centers
- accessing technology journals, magazines and books
- collaboration in grant opportunities

MSDB also provides opportunities for professional development for their IT staff. IT staff have been sent to workshops and classes on network operating systems, network security, web design software, video technologies, application development, and others.

MSDB's goals are aligned with our school improvement plan and with the state technology plan. (MSDB submitted an Agency IT Plan with the Information Technology Services Division (ITSD) of Montana in the spring of 2004. This plan is in effect until 2009.) Students and staff are using technology (email, phone/relay/TDD) to communicate with parents, families, and constituents regularly. This includes our weekly "MSDB Happenings" that the students access, create and send electronically. Students access library services and the Internet on a daily basis. Adaptive equipment and software are used daily in order for blind and low vision students to access technology and electronic information. Captioned media, text boxes, or real-time captioning is used in order to allow the deaf and hard of hearing students access to spoken information.

MSDB has a wise use policy that is given to parents, staff and students. Students and staff must sign a user agreement/contract before user rights are given. With implementation of stiffer consequences for wise use violations, student suspensions have been drastically reduced. Vision5 was purchased this last year to monitor computer usage in the computer lab and has been found to be quite successful. Home directory folders will be limited in size depending on user. Student email boxes to be limited to 5MB. Discussion with Administration on limiting staff email size will occur in the fall.

Technology equipment is catalogued in a database and educational software is shelved and catalogued within Library services for easy checkout. A rotation plan is in place to phase out old equipment and replace it with new.

Outreach staff are provided access to email and network processes by broadband connectivity and VPN access. Outreach staff are provided equipment necessary to perform their job functions as well as have disability specific hardware and software to demonstrate and/or loan (limited time basis) to public schools serving sensory impaired students.

The technology committee will have 3 separate sub-committees beginning the 2005-06 school year. These will be: Library, Software, & Video Conferencing. The Library committee will work with the Software committee to review and analysis software usage. It will also work with the Video Conferencing committee as the Library is an outreach service.

GOALS (also see section B):

Student Learning Goal:
Students shall improve in academic achievement in addition to meeting state technology standards through the use of the GTCC technology curriculum.

Professional Development Goal:
MSDB will provide opportunities for staff development which emphasize technology as a teaching and learning tool. These opportunities will allow teachers to better integrate technology into their instructional activities as well as to continue to refine their basic technology skills. Staff will have access to technological resources including hardware, software, and technology integration support staff. In addition, MSDB will act as a technology resource to expand skills of professionals working with sensory-impaired students across Montana.

Network Goal:
To keep the network environment up-to-date and running smoothly while expanding it to access emerging technologies.

INSERVICE/TRAINING OPPORTUNITIES (See section C)

MSDB provides in house tech support for students and staff. Currently, we have a full-time network manager, a part-time technology coordinator, part-time technology assistant (independent vendor funded by MSDBF), and teachers assigned to technology/technology classes one or more periods a day in each department.

EQUIPMENT REQUESTS (See section D)

MSDB has a rotation plan to phase out old equipment and replace with new. Old equipment may be retained if needed for specific functions or sent to state surplus. MSDB has access surplus equipment in order to obtain additional lasers and monitors. We also accept equipment donations if the equipment meets our needs.

BUDGET (Also see section E):

MSDB will provide a sufficient budget to acquire and support the non-discounted elements of our Technology Plan that will be needed to implement it. MSDB receives funding from E-Rate, rotation (state) budget, education (state) budget, Montana School for the Deaf and Blind Foundation (MSDBF), cash donations, and various grants. To assist in obtaining and completing grants, MSDB has access to a grant writer through the MSDBF.

EVALUATION PROCESS (Also see section F):

This technology plan will be reviewed annually and updated as necessary. All changes will be submitted to the Administration for their approval.

Section B: Goals, Objectives, Strategies, Performance Measurements, By Whom, Timelines, Cost Considerations, Costs, and Funding Sources

Area: Student Learning

Current Status: Students have had basic training in desktop applications (Word, Explorer, Outlook, PowerPoint, and others) and use these in producing works across the curriculum. A majority of students have received some training in video multimedia applications. Students requiring assistive/adaptive hardware and software to access the curriculum have received training. Students use technology to access the curriculum (VI hardware/software), to practice speech, to receive spoken information (AT and captioning), and to provide feedback. Our students are utilizing technology in communicating, presenting, managing, and accessing information.

Goal: Students shall improve in academic achievement in addition to meeting state technology standards through the use of the GTCC technology curriculum.

Objective	Strategies	Performance Measurement	By Whom	Timeline			Cost Considerations	Estimated Costs			Funding Source
				05-06	06-07	07-08		05-06	06-07	07-08	
Students demonstrate an understanding of the basic operations of technologies.	Learn hardware operations of equipment appropriate to needs	VI Assessments & checklists. Portfolios/ digital documentation Online assessment (GTCC, TAGLIT)	Teachers	On-going Evaluate new students as they arrive			May need to order current texts for applications (Office XP).				Education
Students will use technology to communicate effectively and creatively.	Access Communication benchmarks from GTCC. MSDB Happenings	Students will create/present document demonstrating understanding through use of application. Students will access E3 live electronic field trips.	Teachers	On-going							Education Best Buy Scholarships
Students use a variety of technologies to enhance productivity.	Access Productivity benchmarks from GTCC	Teachers will present options, students will select appropriate to needs. Survey or questionnaire	Teachers	On-going Evaluate new students as they arrive							Education

Students use technology responsibly and understand its impact on individuals and society.	Research present & future impacts of technology and related laws (cyber-bullying). Costs/benefits & how improved Understand and apply copyright laws.	Students will demon-strate the skills noted in the curriculum and follow the school technology policy.	Teachers	On-going						Education,
Students develop the skills, knowledge & abilities to apply a variety of technologies to conduct research, manage information, and solve problems.	Students will be given opportunities to do research, manage their information, and solve problems under teacher direction following the GTCC at the appropriate grade level	Examples of skills based on GTCC. Put in portfolio.	Teachers	On-going						Education
Students apply technological abilities and knowledge to construct new personal understanding.	Provide opportunities to explore & expand their rights/responsibilities & develop a productive membership society. I.G.F. 2/college/work view.	Create a reflection journal noting global issues & personal understandings.	Teachers	On-going						Education
Track student learning through portfolios	PowerPoint template	All students have a portfolio by 2008	Teachers IT,Admin	Pilot	Cont	Comp lete	Staff training, equip-ment (scanner cameras Etc.)	**500**		Education, MSDBF Training, MSDB Contin-gency

Area: Professional Development

Current Status: The staff at MSDB use computers during their duty time to teach the curriculum, celebrate successes and culture, complete their assigned duties, to perform routine record keeping, and correspond electronically. Training has been provided on an as needed basis either in small groups or individually. Ongoing training is necessary to maintain and expand staff skills as well as keep them current with technology hardware and software. Staff have participated in training via teleconferences, from GTCC, and from vendors of disability specific hardware/software. MSDB has worked with MSU-N to provide online classes for professionals working with sensory-impaired students across the state via Webtrain.

Goal:. MSDB will provide opportunities for staff development which emphasize technology as a teaching and learning tool. These opportunities will allow teachers to better integrate technology into their instructional activities as well as to continue to refine their basic technology skills. Staff will have access to technological resources including hardware, software, and technology integration support staff. In addition, MSDB will act as a technology resource to expand skills of professionals working with sensory-impaired students across Montana.

Objective	Strategies	Performance Measurement	By Whom	Timeline			Cost Considerations	Estimated Costs			Funding Source
				05-06	06-07	07-08		05-06	06-07	07-08	
Staff will develop basic skills and procedures needed to operate basic school technology and desktop applications	On-campus training. GTCC workshops. Continued distribution of "Tips & Tricks"	Staff will receive certificates of attendance, CEUS or credit for classes. Staff will complete an on-line self assessment (GTCC, TAGLIT)	IT staff	On-going			Comp time, overtime, subs. May need to outsource trainers.	1000	1000	1000	Staff Develop-ment or MSDBF Training
Staff will develop basic skills and procedures needed to operate hardware/software specific to their assigned service area.	On-campus training. Vendor training/support for specific hardware & software.	Staff demonstrate proficiency by using specific hardware/software in their areas. Complete an on-line self assessment (GTCC, TAGLIT)	IT Staff	On-going			Comp time. Subs. Costs to bring in trainers.	1000	1000	1000	Staff Develop-ment or MSDBF Training
MSDB IT staff will receive on-going training in order to keep abreast of technological advancements.	IT staff will attend conference and/or specific training to meet IT area.	IT staff will implement skills and strategies learned. They will share with admin, staff & tech committee any ideas for improving MSDB technology.	Staff Dev. IT Staff	On-going			Conference or training costs (may include registration, air fare, hotel, per diem).	2000	2000	2000	MSDBF Training

Staff will have opportunities to participate in technology conferences.	Announce conferences at the beginning of the year. Staff to sign up and fill out paperwork.	Attend conference and report back to MSDB staff.	Staff Dev. IT Staff	On-going	Conference or training costs (may include registration, air fare, hotel, per diem) as well as sub costs.	3000	3000	3000	MSDBF Training
Continue to access & use Webtrain to inservice professionals working with sensory-impaired students across the state.	Work with university system. Survey professionals. Produce training.	Successful completion of classes.	IT Staff Teachers Admin	Expand, on-going	Cost per minute. Support equipment & materials. Postage.	1000	1500	2000	Included with college fees, district fees, or separate funding source.

Area: Network

Current Status: MSDB is will be completing its network upgrade with the purchase of additional switches. We are currently running Server 2003 with corresponding server/application software. The website was redesigned this last year. It is hosted off campus for network security reasons; however, it is updated and maintained on a regular basis by the network manager. During this last legislative year, our rotation budget was re-instated. IT staff will continue to support staff via electronic "Tips & Tricks" and through small group instruction or one-on-one assistance.

Goal: To keep the network environment up-to-date and running smoothly while expanding it to access emerging technologies.

Objective	Strategies	Performance Measurement	By Whom	Timeline			Cost Considerations	Estimated Costs			Funding Source
				05-06	06-07	07-08		05-06	06-07	07-08	
Purchase replacement PCs and peripherals on a rotation basis	Follow rotation plan/schedule	New equipment in place where needed. Annual review	IT Staff	On-going			Additional licenses for software	20000	20000	20000	State Rotation Fund
Purchase additional GB switches for network upgrade	Follow plan laid out (HI, VI, Cottage)	Switches in place and functioning	IT Staff	Com-plete			Installation costs, racks, rails	16000			State rotation, MSDBF
Maintain maintenance agreements as necessary as well as utility software licenses.	Review license expiration dates and purchase	Hardware maintenance agreements current. Utility software licenses current. Annual review	IT Staff	On-Going				5000	5000	5000	MSDBF
Maintain current ½ time outsourced tech assistant	Submit proposal for funding to MSDBF, contract with vendor	½ IT Assistant on staff for approx. 18.5 hpw Annual review	IT Staff, MSDBF	On-Going			If emergency occurs, may need to expand time	10000	10000	10000	MSDBF consulting
Maintain dynamic website	Schedule weekly dates for new pictures, student work and other areas to be submitted for posting	Website is kept current.	Network Manager, Admin	On-Going			Teacher and staff time. Storage space at ITSD				
Purchase up-to-date software required by various departments (this includes upgrades)	Software committee to review department requests and submit list for purchase	Requested software purchased. Annual review	Software committee	On-Going			VI licensing costs are high	4000	4000	4000	Education, MSDBF, grants

Purchase equipment to fulfill department needs	Create request lists for each dept. Purchase some from Contingency Fund, submit list and justifications to grant writer	Priority items purchased when funds available. Annual review.	IT Staff	On-Going			Training necessary to support equipment & software	To be deter mined	To be deter mined	To be deter mined	MSDBF, grants
Support online training classes (Webtrain, webcasts)	Review class requests and make arrangements with university system	Classes online Annual review	IT STaff	On-Going			Cost per minute. Support equipment & materials. Postage.	1000	1500	2000	Included with college fees, district fees, or separate funding source.
Maintain Library connectivity	Renew yearly maintenance & connectivity fees	Annual Review	Library committee & Network Manager	On-going. Yearly renewal				4800	4800	4800	Education
Maintain Outreach connectivity	DSL/VPN fees	Annual Review	IT Staff Business Manager	On-Going			New staff	4800	4800	4800	Varies
Produce CD, DVDs or streaming media for use on website and on-line classes in order to support professionals working with sensory impaired students across Montana	Work with depts to create list of projects. Develop script/storyboard. Capture material and produce	Media being shared and used. Master copies stored in library. Annual review	IT Staff	Pilot	Expand	On-Going	Equipment & software costs. Additional costs for ITSD storage. Staff time.	1000	1000	1000	MSDBF, grants
Explore how MSDB could use video conferencing technologies	Meet with OPI and state people, examine bandwidth Develop pilot	Utilizing video confer-encing equipment for pilot program(s)	Conferenc ing committee	Re-search	Pilot	Ex-pand	Equipment, bandwidth, tech support time, teacher time		Costs to be determined		Grants, E-Rate
Extend AMP system to Mustang Center	Research cabling signal distance limitation. Purchase AMP switch if distance can be bridged	Annual Review and/or system up and running in Mustang Center (gym)	IT Staff	Re-search	Com-pleted		AMP switch, installation		To be deter mined		MSDBF Network

Update phone system from analog to digital	Part of long range building plans	Digital phone system in place	Business Manager			Com-pleted	Installation & equipt costs			74000	Long Range Blg Fund
Provide "Tips & Tricks" to parents via MSDB Happenings newsletter	Follow schedule provided by the school improve-ment committee	Annual review	Network Manager SI committee	Begin	On-going	On-going	IT Staff time				

Section C: MSDB In-service/Training Opportunities

In-service/Training Opportunities	2005-06	2006-07	2007-08
Area specific hardware/software (B, LV, Adaptive)	X	As needed OR as available	On-going
Bar-coding Software			X (if purchased)
Basic troubleshooting (system, printers)	As needed for new staff	As needed for new staff	As needed for new staff
Braille Note/Pac Mate training	X		
Closing the Gap/CSUN conference (VI, MHC)		X	
Conference on Technology for the Deaf	X		X
Conferences (NCCE, NECC, others)	If funding available	If funding available	If funding available
Digital Equipment (cameras, projectors, card readers, scanners, etc.)	As needed	As needed	As needed
DreamWeaver	As needed	As needed	As needed
GTCC Summer Workshops	X	X	X
IEP software (FMP?)	X (depends on which system OPI goes with)	As needed for new staff	As needed for new staff
Internet	As needed	As needed	As needed
Library Services	X	X	X
Multimedia software (HyperStudio, Pinnacle Pro, Adobe Suite, Producer)	As needed	As needed	As needed
Network Access (Server 2003) On campus/off campus access	As needed for new staff	As needed for new staff	As needed for new staff
Office XP (Word, Outlook)	As needed for new staff	As needed for new staff	As needed for new staff
Other applications (Excel, Access, PowerPoint, Publisher, VisiForm)	As needed	As needed	As needed
SASI	As needed for new staff	As needed for new staff	As needed for new staff
SmartBoards	X (if purchased)	X	As needed
VirusScan & maintenance	X	X	X
WebTrain	As needed	As needed	As needed
Windows XP	As needed	As needed	As needed
Video Conferencing Equipment	Desktop/IP as needed	X (if purchased)	X
Video Streaming Software			X

Students to receive "rules and regs" orientation in the fall of each year as they sign their user contracts.

Section D: Department Requests

(If X is present in more than one year, purchasing & costs will be spread out over the years covered.)

Department	Item	Cost	05-06	06-07	07-08
Admin/Clerical	3 FP monitors	900	X		
Blind/Low Vision	1 color laser	2000	X		
	2 classroom lasers (one w/infra-red)	700		X	
	2 projectors	4000		X	X
	1 Braille Note	4000	X		
	2 Digital Cameras	600	X	X	
	1 Video camera	800	X		
	1 SmartBoard	1500		X	
	3 FP monitors	900	X	X	X
	5 DVD/VCRs	600	X	X	
	3 Step by Step	450	X	X	X
	3 Talking Calculators	80	X		
	5 Telex Scholars	1250		X	X
	1 SuperTalker	370		X	
	3 Tape Recorders	300	X		
	1 Mobil Presenter	500			X
	6 rotation/replacement desktops	6000	X	X	X
	3 rotation/replacement CCTVs	6000	X	X	X
	2 rotation/replacement laptops	2400	X	X	
	Words Plus tablet PC for SDP	9000			X
	Update Window Eyes, EZ Keys, Jaws, Magic, Duxbury (VI licenses)	10000	X	X	X
	2 Flash cards	100	X		
	Dancing Dots (Goodfeel Music Translation to Braille)	800	X		
	2 scanners	200	X	X	
Deaf/HH	1 color laser	2000		X	
	1 pod laser	300	X		
	2 Presentation laptops	3000	X		
	4 Projectors	8000	X	X	
	2 SmartBoard	3000	X	X	
	2 SynchroEyes & CPS system	5000	X	X	
	9 Digital Cameras	2700	X	X	X
	2 Video Cameras	2000	X	X	
	1 DVDR/VHS	300	X		
	12 DVD/VCR	1440	X	X	X
	1 mounted TV w/VCR/DVD	300		X	
	6 rotated/replaced laptops	8000	X	X	X
	9 rotated/replaced desktops	9000	X	X	X
	2 scanners	200	X	X	
	6 card readers (for digital media)	200	X	X	
	15 AlphaSmarts (trade-in)	1000	X	X	X
Library	Connectivity/Renewal Fees	14400	X	X	X

	Software (signing)	1000	X		
Mustang Center	Large projection screen for the gym	1000			X
Network	1 48 port for HI (or 2 24 ports), 1 24 port for VI, 1 12 port for cottage	16000	X		
	1 Video Conferencing Unit	Cost to be determined			
	TI/connectivity to Internet	17640	X	X	X
Residential Program	3 lasers	9000	X	X	X
	1 color laser	2000		X	
	2 FP monitors	600	X		
	6 rotation/replacement computers	6000	X	X	X
	1 LG screen TV	3000			X
Outreach	4 rotation/new computers	4800	X	X	
	1 projector	2000		X	
	5 rotation/new lasers	1500	X	X	X
	5 connectivity packages to network	6500	X	X	X
Support Services	4 lasers	1200	X	X	
	2 Digital Cameras	600	X	X	
	2 card readers	100	X	X	

Section E: Budget

2005-2006:
MSDB Foundation
Network: $15,000
Training: $7,000
Consulting: 10,000
Contingency Fund: $12,000
Equipment: $50,000 (obtained through grant process)

State $25,000
E-Rate: $5880

2006-2007: Projected
MSDB Foundation
Network: $10,000
Training: $7,000
Consulting: $10,000
Contingency Fund: $10,000
Equipment: $50,000 (obtained through grant process)

State $25,000
E-Rate: **$**5880

2007-2008: Projected
MSDB Foundation
Network: $10,000
Training: $7,000
Consulting: $10,000
Contingency Fund: $10,000
Equipment: $50,000 (obtained through grant process)

State $25,000
E-Rate: $5880

*consulting
The technology planning committee is recommending that the budget area titled, "Consulting", should be defined as:

- Technological support which could include bringing in experts on specialized equipment and software.
- Providing training for the network manager and technology trainer related to our network system maintenance
- Additional help/facilitator during the evaluation process
- Outside assistance needed for web-site maintenance

Section F: Evaluation Process

MSDB will monitor progress toward these goals and make mid-course corrections in response to new developments and opportunities as they arise using the following assessment tools and timelines.

Staff Assessment (annually)

Online Golden Triangle Cooperative Self Evaluation Rubric for Staff Technology Profile - http://www.gtccmt.org/profdevelop/teacher_selfevaluation.php
Taking a Good Look at Instructional Technology (TAGLIT)
MSDB Survey/Questionnaire (to be developed)
See: Performance Measurements

Student Assessment (annually)

Online Golden Triangle Cooperative Self Evaluation Rubric for Student Technology Profile - http://www.gtccmt.org/profdevelop/student_selfevaluation.php
Taking a Good Look at Instructional Technology (TAGLIT)
MSDB Survey/Questionnaire (to be developed)
See: Performance Measurements

Network Report (annually)

The Network Manager will report on network functionality and capacity and recommend any necessary upgrades to the system as well as hardware and software (licenses) needs.

Technology Plan Review (**annually)**

By the Technology committee looking at data retrieved from the above assessments, department reports, and parent/constituent feedback. To aid with planning, the committee may also decide to complete the Interactive School Technology and Readiness (STaR) Chart (from ISTE).

Section G: Appendixes

A. Golden Triangle Cooperative Technology Standards (available in hard copy)

1 Grades K-2
2 Grades 3-5
3 Grades 6-8
4 Grades 9-12

B. Montana Technology Content and Performance Standards

http://www.opi.state.mt.us/pdf/Standards/ContStds-Tech.pdf

C. ISTE Teacher Standards

ISTE - NETS for Teachers

Educational Technology Standards and Performance Indicators for All Teachers

Building on the NETS for Students, the ISTE NETS for Teachers (NETS•T), which focus on preservice teacher education, define the fundamental concepts, knowledge, skills, and attitudes for applying technology in educational settings. All candidates seeking certification or endorsements in teacher preparation should meet these educational technology standards. It is the responsibility of faculty across the university and at cooperating schools to provide opportunities for teacher candidates to meet these standards.

The six standards areas with performance indicators listed below are designed to be general enough to be customized to fit state, university, or district guidelines and yet specific enough to define the scope of the topic. Performance indicators for each standard provide specific outcomes to be measured when developing a set of assessment tools. The standards and the performance indicators also provide guidelines for teachers currently in the classroom.

1 TECHNOLOGY OPERATIONS AND CONCEPTS.

Teachers demonstrate a sound understanding of technology operations and concepts. Teachers:

- demonstrate introductory knowledge, skills, and understanding of concepts related to technology (as described in the ISTE National Education Technology Standards for Students)
- demonstrate continual growth in technology knowledge and skills to stay abreast of current and emerging technologies.

2 PLANNING AND DESIGNING LEARNING ENVIRONMENTS AND EXPERIENCES.

Teachers plan and design effective learning environments and experiences supported by technology. Teachers:

- design developmentally appropriate learning opportunities that apply technology-enhanced instructional strategies to support the diverse needs of learners.
- apply current research on teaching and learning with technology when planning learning environments and experiences.
- identify and locate technology resources and evaluate them for accuracy and suitability.
- plan for the management of technology resources within the context of learning activities.
- plan strategies to manage student learning in a technology-enhanced environment.

3 TEACHING, LEARNING, AND THE CURRICULUM.

Teachers implement curriculum plans that include methods and strategies for applying technology to maximize student learning. Teachers:

- facilitate technology-enhanced experiences that address content standards and student technology standards.
- use technology to support learner-centered strategies that address the diverse needs of students.
- apply technology to develop students' higher order skills and creativity.
- manage student learning activities in a technology-enhanced environment.

4 ASSESSMENT AND EVALUATION.

Teachers apply technology to facilitate a variety of effective assessment and evaluation strategies. Teachers:

- apply technology in assessing student learning of subject matter using a variety of assessment techniques.

- use technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning.
- apply multiple methods of evaluation to determine students' appropriate use of technology resources for learning, communication, and productivity.

5 PRODUCTIVITY AND PROFESSIONAL PRACTICE.

Teachers use technology to enhance their productivity and professional practice. Teachers:

- use technology resources to engage in ongoing professional development and lifelong learning.
- continually evaluate and reflect on professional practice to make informed decisions regarding the use of technology in support of student learning.
- apply technology to increase productivity.
- use technology to communicate and collaborate with peers, parents, and the larger community in order to nurture student learning.

6 SOCIAL, ETHICAL, LEGAL, AND HUMAN ISSUES.

Teachers understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools and apply those principles in practice. Teachers:

- model and teach legal and ethical practice related to technology use.
- apply technology resources to enable and empower learners with diverse backgrounds, characteristics, and abilities.
- identify and use technology resources that affirm diversity
- promote safe and healthy use of technology resources.
- facilitate equitable access to technology resources for all students.

D. Relevant Research

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